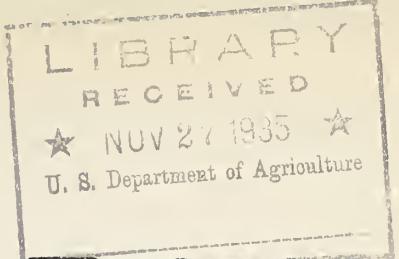


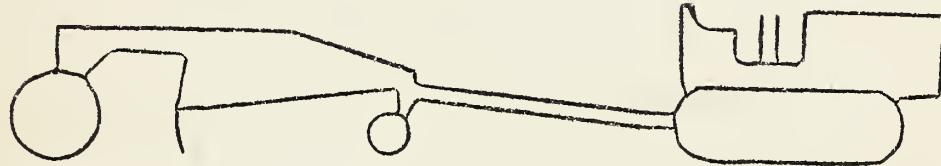
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

9
16 ch



CONSTRUCTION



HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Vol. 1 Washington, D. C. November 2, 1935 No. 13

Released by Alabama State Commission of Forestry, Informational Service, October 21, 1935.

C.C.C. BUILDS BRIDGES

Montgomery-----The construction of vehicle bridges by the Civilian Conservation Corps, although generally following standardized specifications, presents many interesting sidelights, particularly with regard to the bridges requiring a piling foundation, according to the Alabama Commission of Forestry.

In driving bridge piling the C.C.C. uses many methods to penetrate the soil according to the equipment and facilities available. In sandy soil a jet is used, while in heavy soils an engine driven pile driver with a heavy hammer is required. One of the camps has a small hand operated pile driver with twelve foot leads and a block of black gum weighing 200 pounds for a hammer, while at another camp a block of gum of approximately the same weight with four handles attached is used as a pile driver. The latter requires eight men to operate it, two men to the handle. Strange to say, the latter method is quite as effective and satisfactory under favorable conditions as any other.

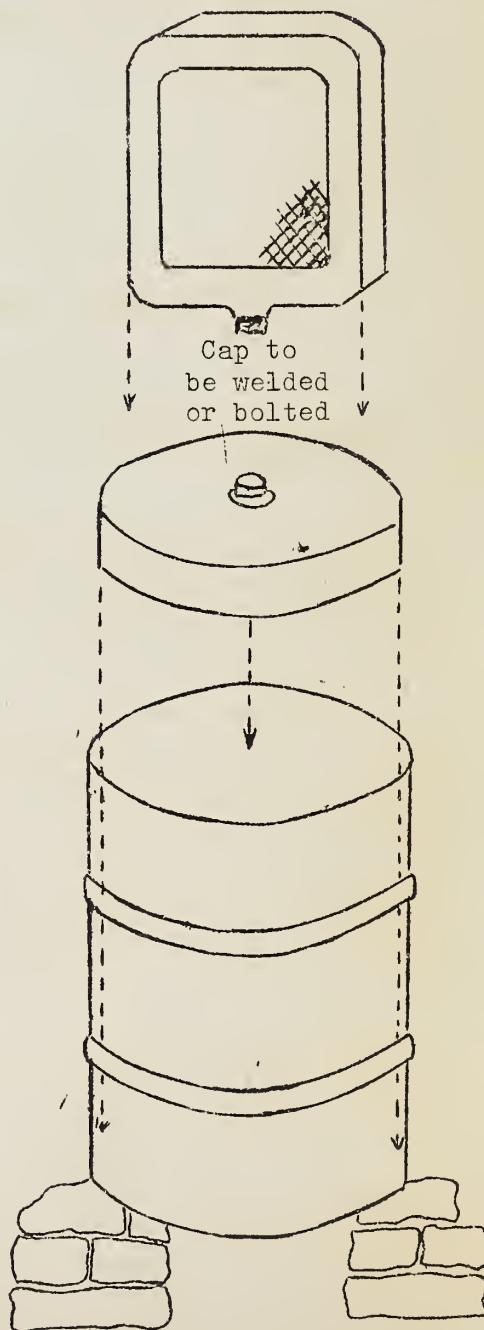
The specifications of such bridges are not as pretentious as those of highway bridges, since the forest roads are not built as regular thoroughfares but mainly for fire protection purposes. However, the structures are quite substantial and are designed to endure for many years.

Bridge construction on State Park projects has resulted in a great range of designs. Planned to fit in with existing natural features, bridges of native stone masonry have been constructed to give pleasing results. Foundations for masonry bridges are carried down to solid bed rock. The largest masonry bridge constructed thus far has a semicircular arch opening of 20 feet in diameter. Park bridges fulfill more purposes than forest bridges, and are thus frequently built to higher specifications.

This practical radiator percolator was submitted by CCC Camp 53-P (colored), Fort Bragg, North Carolina.

RADIATOR PERK

The boiler is made from a fifty gallon steel oil barrel with one head removed. From a thirty gallon drum, one end is cut forming a pan three inches deep. This pan is inverted, and to center of bottom a radiator cap is bolted or welded. Two holes are then cut through cap and bottom of inverted pan. The cap, with pan attached, is connected to radiator in usual manner, which locks pan and radiator together. A home-made rubber gasket is used on radiator cap. The motor connection at top of radiator is plugged. This is the connection nearest the perk pan. The overflow pipe is also plugged. These connections are plugged so that steam and hot water developed by perk pan must pass through all parts of radiator. The radiator and pan are then turned upside down and lowered into boiler. Enough water is then put in to completely cover core of radiator, to which is added two standard size cans of lye. When fire is built under boiler, steam that accumulates under pan is forced through holes in radiator cap up through radiator, thereby carrying out grease and dirt cut loose by boiling lye water solution. After perking in lye solution, the radiator is then perked in clean water to flush all lye from tubes.



Simple Method for Locating Engine Miss in Multi-Cylinder Engines.

By O. Wiederhold of Washington Office.

It is sometimes difficult to pick out a weak cylinder in multi-cylinder engines. A simple and effective means to accomplish this is to place a drop light close to the engine fan so that the rays from the light shine directly on to the fan blades. The light must be connected to a 60 or 25 cycle A.C. current supply. By slowly speeding up the engine, a revolving shadow can be picked up in the fan blades that gradually comes to stop as the blades come into synchronism with the A.C. current pulsation. After bringing the shadow to rest, or nearly so, the slightest change in Engine R.P.M. such as is occasioned by shorting out a good cylinder, will cause a perceptible movement of the shadow.

